

Sustainable Installations Regional Resource Assessment (SI RRA)

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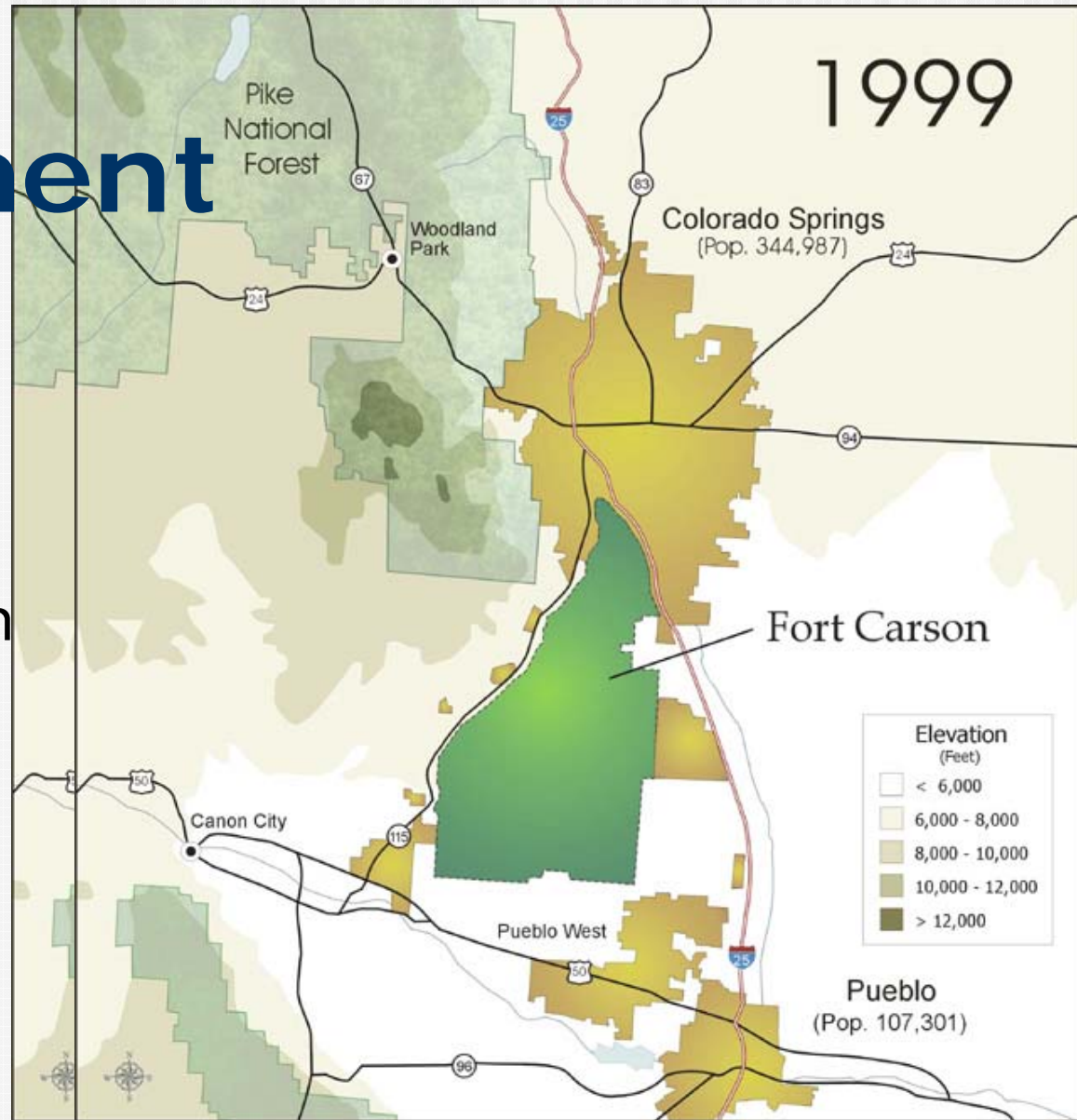


Pressures on Ranges and Training Lands



Encroachment

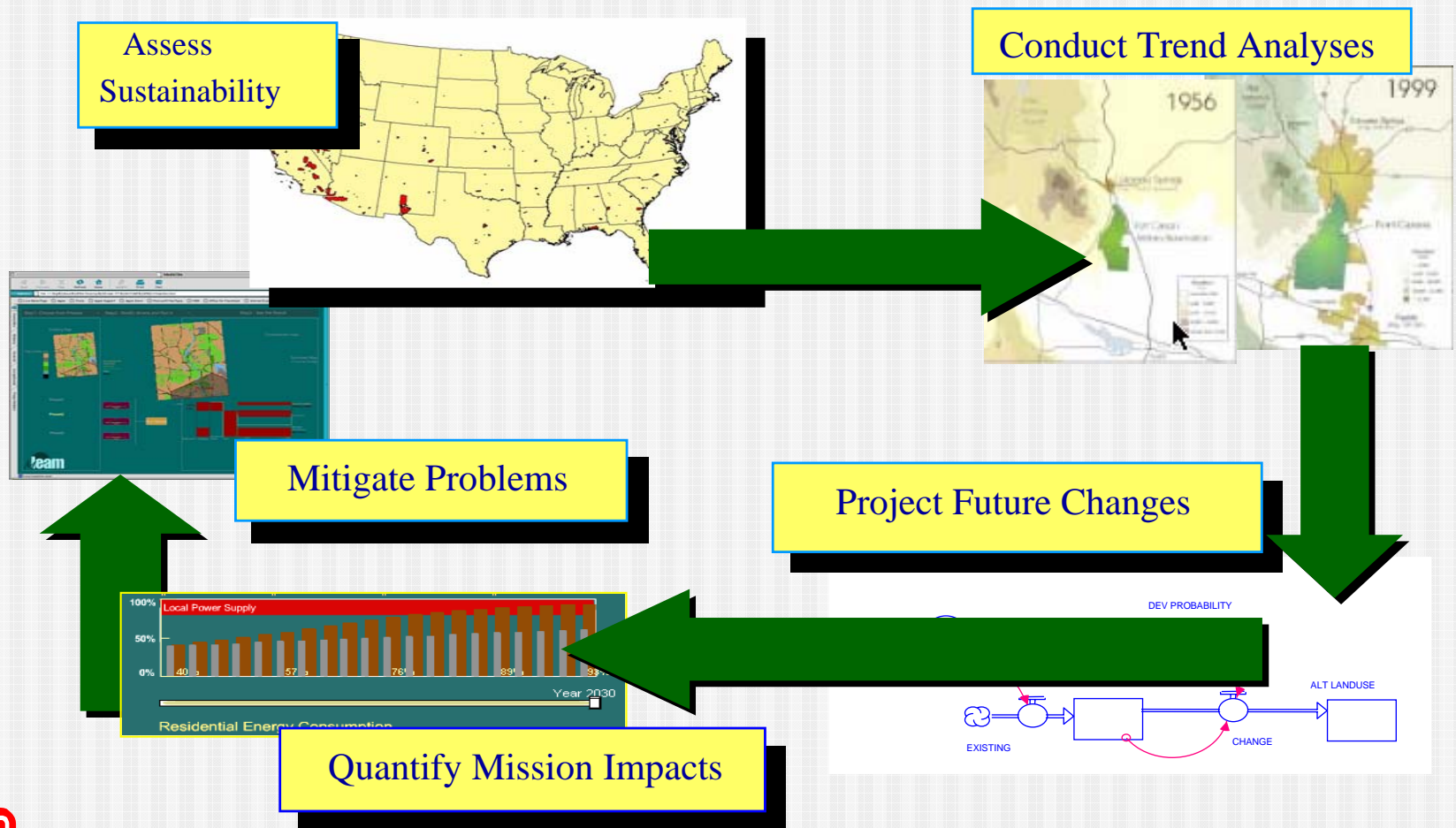
"Any outside activity law or pressure that affects the ability of military forces to train to doctrinal standards or to perform the mission assigned to the installation."



Urban Growth at Fort Carson, Colorado

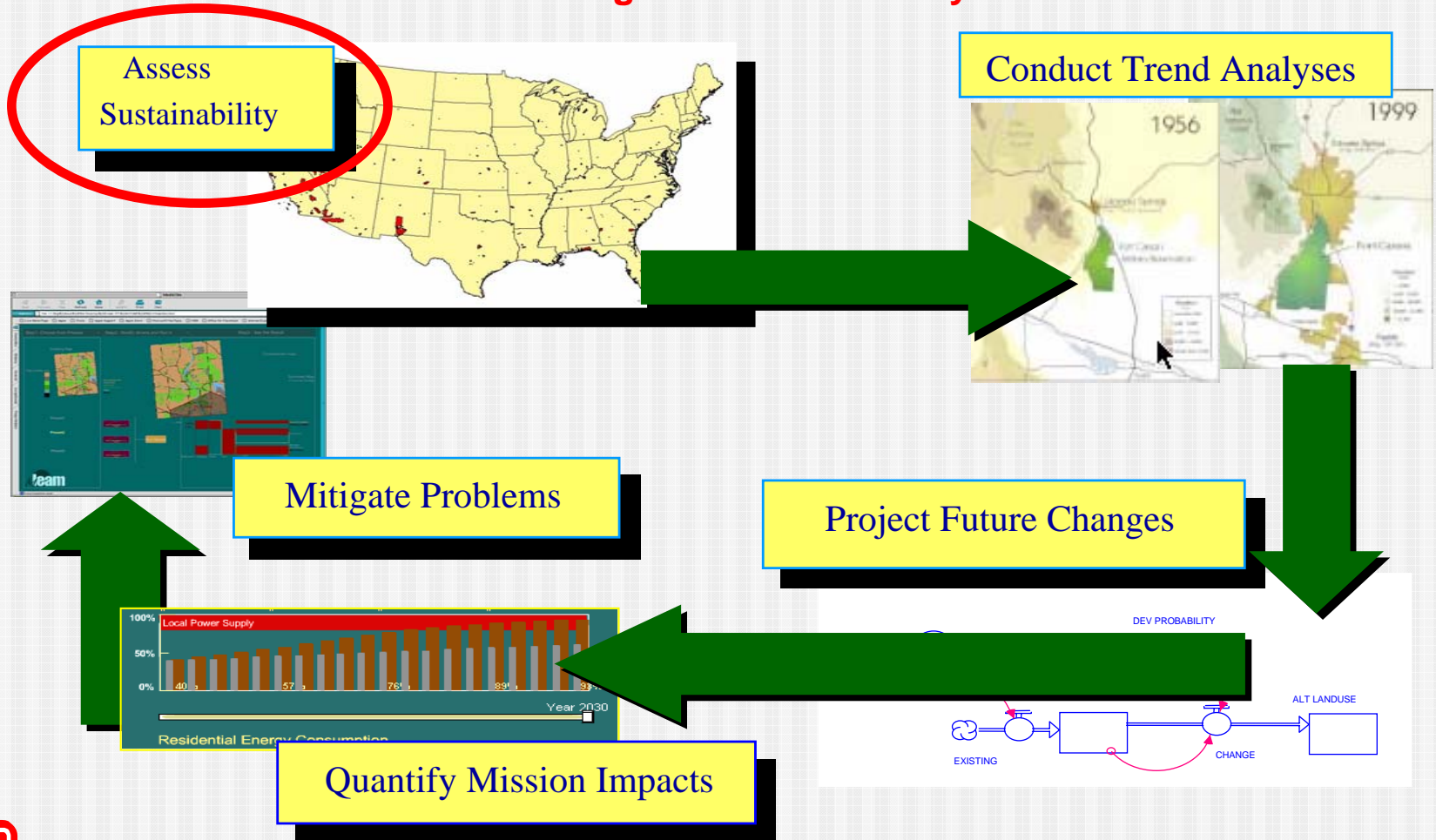


Technologies for Planning Across Installation Fence Lines



Technologies for Planning Across Installation Fence Lines

SIRRA is a national database for regional sustainability assessment



Objective for SIRRA

To provide an easily accessible framework for collection, comparison and analysis of regional information relevant to installation sustainability.

SIRRA is one of several technologies being developed by ERDC to provide access to data, analysis and expertise for across the fence line planning.



SIRRA . . .

- characterizes encroachment stressors.
- Uses existing science and measurement-based national data sources.
- Develops sustainability ratings for each indicator.
- Develops a GIS display of data.
- Incorporates findings within a web-based analysis tool



SIRRA's Sustainability Issues

- Air
- Energy
- Urban Development
- Threatened and Endangered Species
- Locational
- Water
- Economic
- Quality of Life
- Infrastructure
- Security



Data Sources for SI RRA

- National Data Sets
 - DOE, EPA, Census Bureau, FAA
 - State, county and watershed resolution
- Proven Sources
- Updated at Regular Intervals
 - QOL, Economic – ten years
 - Energy, Transportation, Watershed, TES – annual
- Automated Update is Optimal
 - Cooperative agreements for updates being developed with data collection agencies

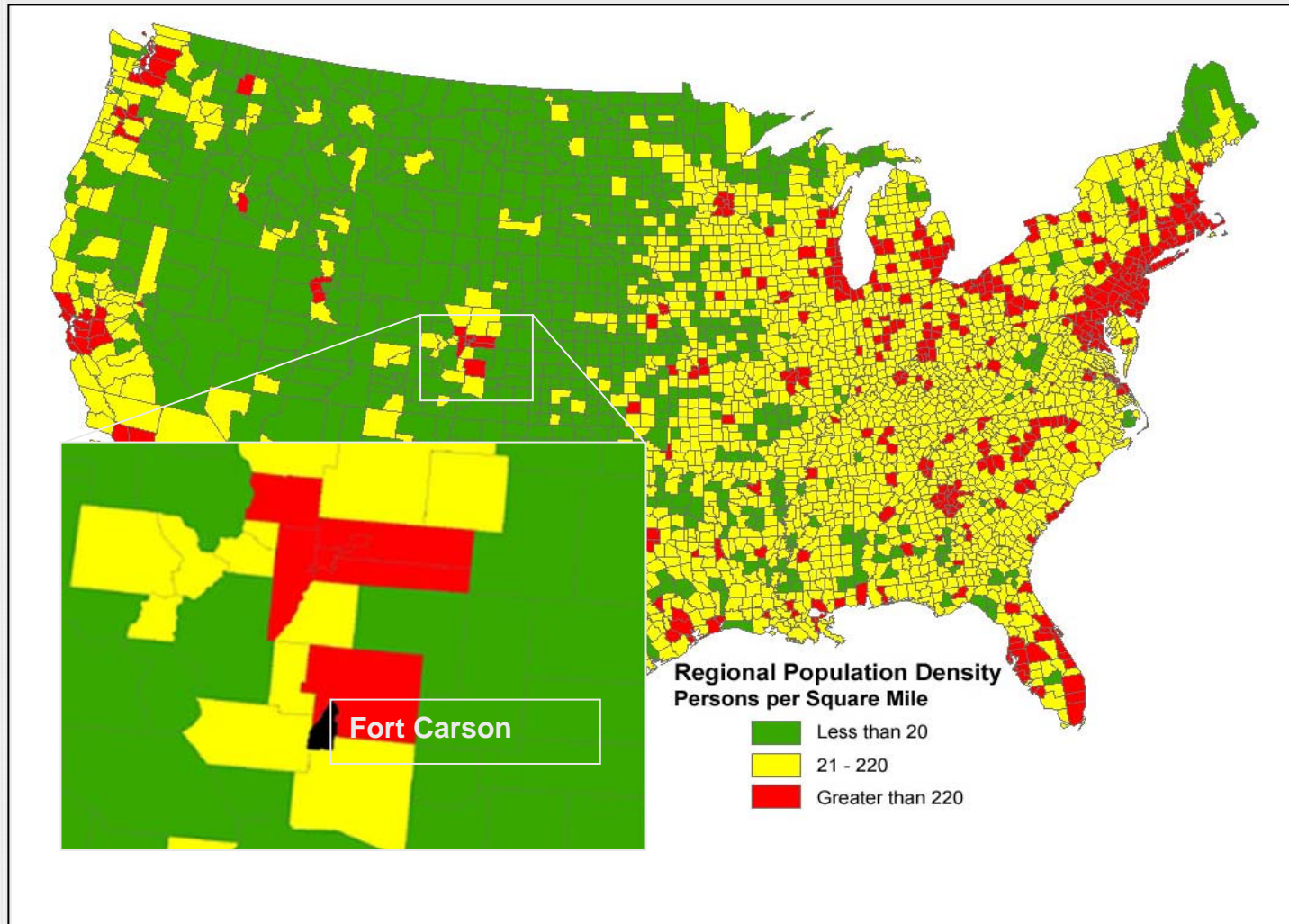


Sustainability Ratings

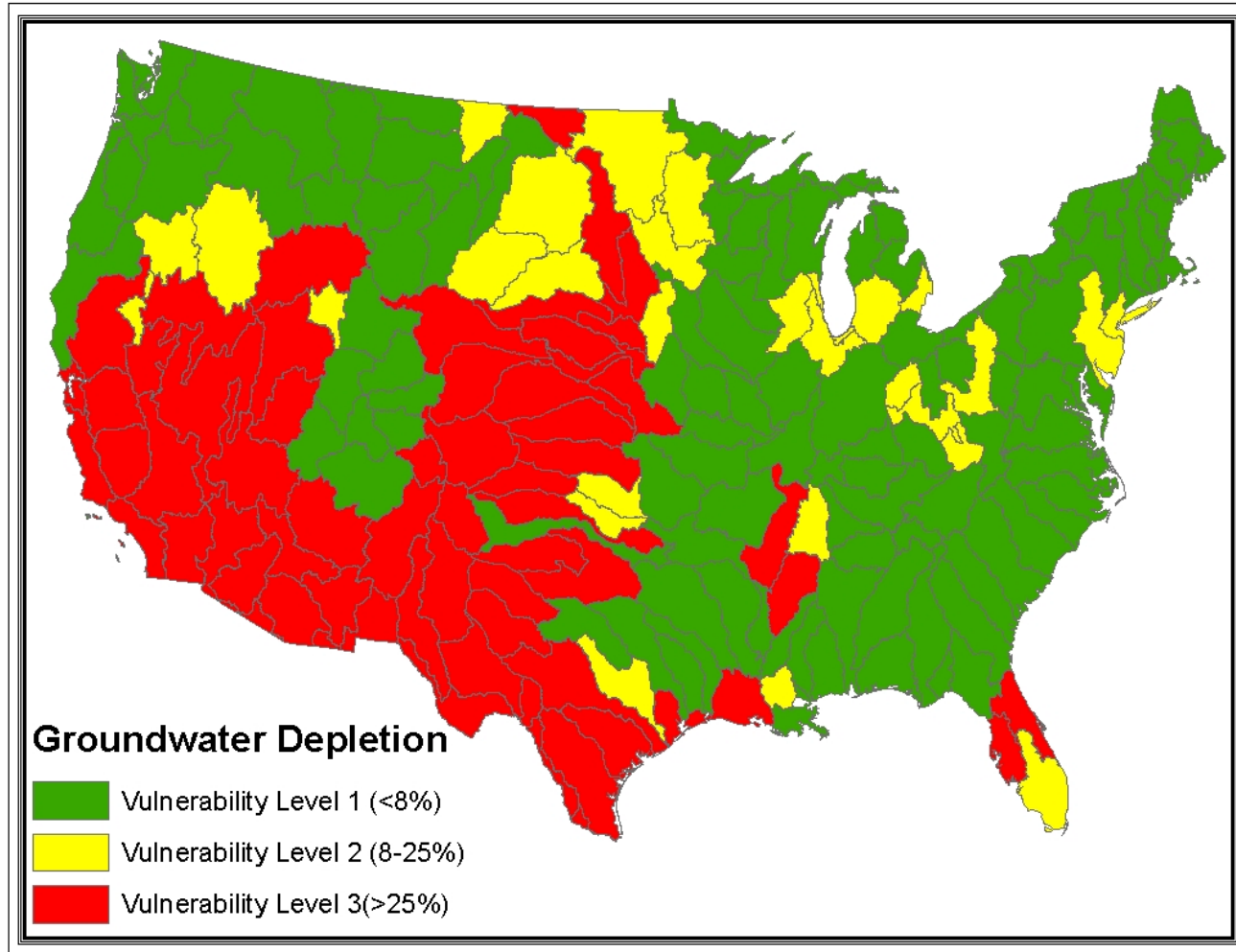
- National Regulatory Targets
 - EPA: criteria air pollutants & index of water indicators
- Existing Agency
 - FEMA: designated seismicity
 - USGS: 100 year flood plain
- Calculated
 - Quality of Life: national averages
 - Economic: literature review
- Expert Opinion
 - Electrical Deregulation
 - State Smart Growth Plans



GIS Display of Data



GIS Display of Data



Web-Based Analysis Tool

The screenshot shows a web browser window titled "Fort Future: SIRRA Home - Microsoft Internet Explorer". The address bar displays "https://ff.cecer.army.mil/ff/sirra.do". The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar contains buttons for Back, Forward, Stop, Home, Search, Favorites, Media, and Print. Below the address bar is a search bar and a row of navigation buttons: "The lord of the ring", "Sex and the city", "Home and garden", "Home security", "The firm", "Air new zealand", "Big and tall", and "Human resources". The main content area features a "FORT FUTURE" logo on the left and a "SIRRA Home" header on the right. The header includes links for "MyFF", "Account", "Logout", and "Help". Below the header is a breadcrumb trail: "home > resources > sirra". The main content area is titled "SIRRA" and "Sustainable Installations Regional Resource Assessment". It includes a welcome message, a list of links for "Home" (Welcome Note, SIRRA Version 2 Updates) and "Resources" (Tech Note, Project Background and Overview, SIRRA Help, List of SIRRA Indicators, Download Metadata from SERM website), and a "Database" section (Indicator Maps, Indicator Tabular Data, Report Generator). The text describes the SIRRA methodology and its purpose.

Fort Future: SIRRA Home - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address <https://ff.cecer.army.mil/ff/sirra.do> Go Links

Search The lord of the ring Sex and the city Home and garden Home security The firm Air new zealand Big and tall Human resources

FORT FUTURE SIRRA Home

MyFF Account Logout Help

home > resources > sirra You're logged in as Anonymous SIRRA User [change]

SIRRA

Sustainable Installations Regional Resource Assessment

Welcome to SIRRA Version 2. For details about the changes made from SIRRA Version 1, click [here](#).

SIRRA Version 2 web-based analysis tool provides a first level screening intended to assist users in answering four types of questions related to sustainability using spatially related national data sets. These questions are:

1. What are important across the fenceline sustainability issues for an installation?
2. How can unit transformation and stationing requirements be best met on existing or new DoD installations?
3. How does sustainability compare across a range of installations, for example, in the context of realignment of forces?
4. What is the regional context of an installation for one or a group of sustainability indicators?

The SIRRA methodology is a process of characterizing the region surrounding a military installation based on an evaluation of ten themes: air, energy, urban development, threatened and endangered species, location, water, economy, quality of life, infrastructure, and security. The SIRRA methodology provides resource assessment ratings for forty-eight individual regional indicators. SIRRA relies on existing national data sets primarily from federal or other national organizations that manage or collect the data. Statistical analyses were completed for each indicator, where required, to assign sustainability thresholds and ratings. The data was then mapped into GIS coverages for individual indicators coded as red, amber, or green. Military installations are placed geographically in a location and the GIS data is applied to evaluate regional aspects of the installation setting. It is important to note that the ratings are related to data from the counties and watersheds that installations lie within, and not the installations themselves.

Collectively, indicators can aid in identifying potential issues that should be considered when stationing, base realignment, and mission sustainment decisions are made. This information can also inform installation sustainability planning. Some limitations of this study do necessitate caution in the use and application of the results. The set of indicators are based on the expert judgments and consensus of the project team and were somewhat restricted by the available data. The identification of specific thresholds and classifications is subjective in some cases, and alternative classifications are possible. The goal of the database is to provide useful insight into identifying relative ratings for resource issues across installations and these results should not be interpreted as checks. Different installations have different regional resource issues and differing missions. Application of the data should be done with this in mind.

Done Internet



SIRRA Matrix



home > resources > sirra > matrix

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SIRRA

Home

- [Welcome Note](#)
- [SIRRA Version 2 Updates](#)

Resources

- [Tech Note](#)
- [Project Background and Overview](#)
- [SIRRA Help](#)
- [List of SIRRA Indicators](#)
- [Download Metadata from SERM website](#)

Database

- [Indicator Maps](#)
- [Indicator Tabular Data](#)
- [Report Generator](#)

SIRRA - Sustainable Installations Regional Resource Assessment

Select a service branch:

- ☐ Army ☐ Air Force ☐ Navy ☐ Marines
☐ DLA ☒ All Branches

OR - Select an individual installation:

All Installations

Select one or more sustainability issues:

- ☐ Air Sustainability ☒ Energy Sustainability ☒ Urban Development ☐ TES ☐ Locational Sustainability
☐ Water Sustainability ☐ Economic Sustainability ☐ QOL Sustainability ☐ Infrastructure Sustainability ☐ Security Sustainability ☐ All Indicators

Display red-yellow-green colors for indicator thresholds:

- ☐ No Threshold Colors (default) ☒ Add Data-provider Thresholds ☐ Add SIRRA-developed Thresholds

Submit Query

Legend	
good	color not applied
acceptable	data not available
poor	47.2 = weighted data

Selected service branch: All Branches (309 installations)

Installation by State		Indicators											
		Energy Sustainability						Urban Development					
Installation	State	Electrical Reserve Margin (% margin)	Electrical Grid Congestion (congestion level)	Renewable Energy-Wind (Power Class)	Renewable Energy-Solar (Insolation Value)	Renewable Energy-Biomass (tons/sq.mile)	Electrical Price Structure (Deregulation)	Regional Population Density (people/sq. mile)	Incr. Regional Growth Rate (% incr. growth rate)	Regional Population Growth (% growth rate)	Regional Land Urbanization (% urbanized)	State Smart Growth Plans (rating)	Joint Landuse Study (status)
Anniston Army Depot (Army)	Alabama	11.2	Low Congestion	1	5	134.63	No Regulation	184.09	93.89	-3.71	-	No Reforms	No JLUS
Fort McClellan (Army)	Alabama	11.2	Low Congestion	1	5	134.63	No Regulation	184.09	93.89	-3.71	-	No Reforms	No JLUS

- [Indicator Maps](#)
- [Indicator Tabular Data](#)
- [Report Generator](#)

Selected service branch: Marines (18 installations)					
Installation by State		Indicators			
		Economic Sustainability			
Installation	State	DOD Local Employment (% of total local unempl.)	Unemployment (%)	Housing Affordability (% of total income)	Poverty (% of total pop.)
Yuma MCAS (Marine Corps)	Arizona	5.62	23.5	41.18	18.54
Barstow MCLB (Marine Corps)	California	2.41	5.8	46.13	15.41
Bridgeport MCMWTC (Marine Corps)	California	-2.28	5.82	34.81	11.69
Camp Pendleton MCAS (Marine Corps)	California	6.45	4.3	39.83	12.03
Camp Pendleton MCB (Marine Corps)	California	6.45	4.3	39.83	12.03
Miramar MCAS (Marine Corps)	California	6.45	4.3	39.83	12.03
San Diego MCRD (Marine Corps)	California	6.45	4.3	39.83	12.03
Twentynine Palms MAGTFTC (Marine Corps)	California	2.41	5.8	46.13	15.41
Blount Island Command (Marine Corps)	Florida	4.38	5.7	34.31	11.66
Albany MCLB (Marine Corps)	Georgia	1.55	5.6	33.81	23.92
Kansas City MCRSC (Marine Corps)	Missouri	1.2	6.08	30.93	9.15
Camp Lejeune MCB (Marine Corps)	North Carolina	43.4	5.7	41.85	11.25
Cherry Point MCAS (Marine Corps)	North Carolina	15.81	5.5	32.63	12.35
New River MCAS (Marine Corps)	North Carolina	43.4	5.7	41.85	11.25
Beaufort MCAS (Marine Corps)	South Carolina	14.42	3	32.63	10.08

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Metadata Documentation

- Issue: Economic
- Indicator: Job Availability
- Variable: Unemployment
- Scale: county
- Year: 2000
- Data Source: Bureau of Labor Statistics
- Logic



Metadata (cont'd)

- Replicable: annual
- Directions: acquire/process data
- Indicator Measure: thresholds
- Rules: for multiple counties
- Map





SIRRA Map



home > resources > sirra > map

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SIRRA

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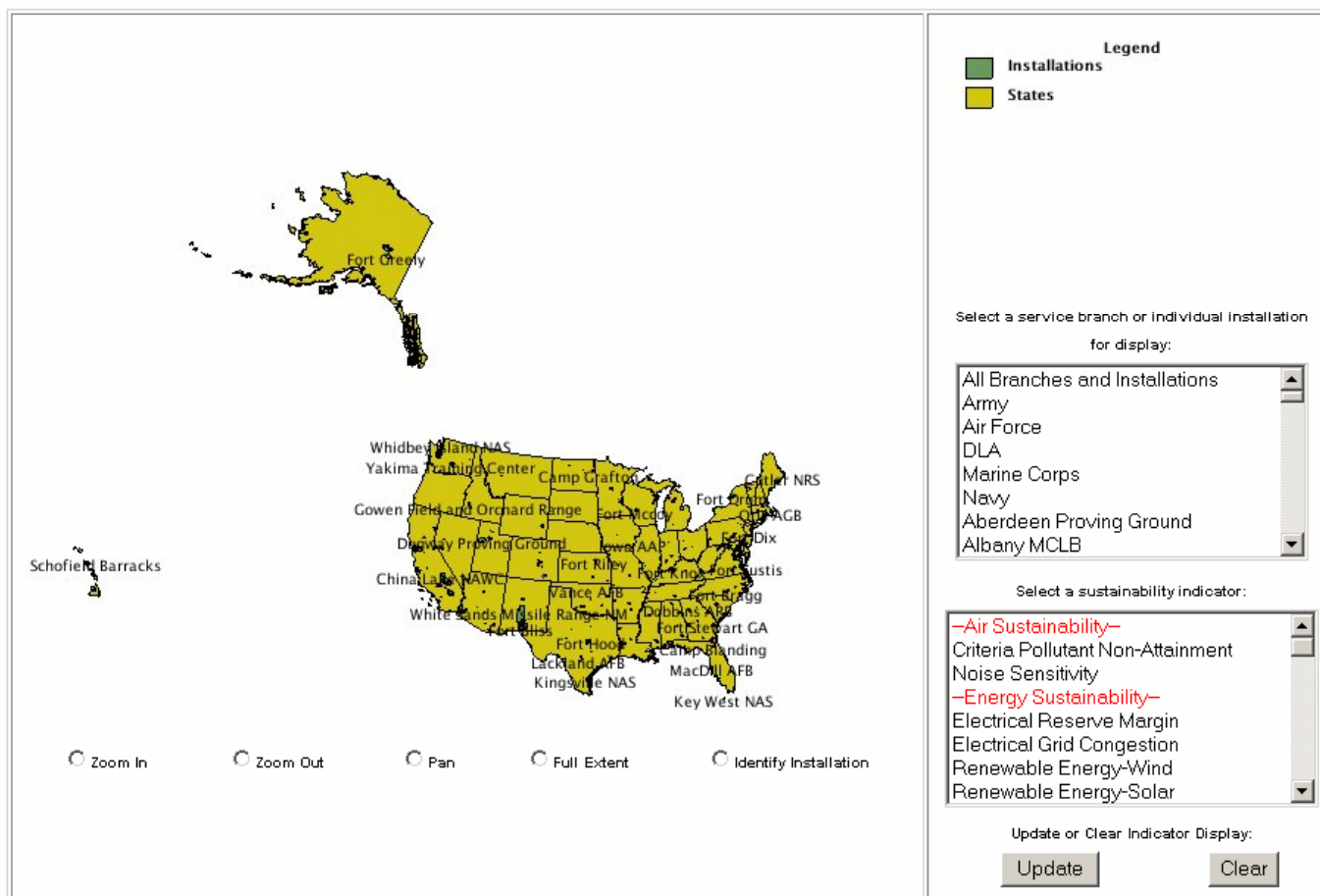
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SIRRA - Sustainable Installations Regional Resource Assessment





SIRRA Map



home > resources > sirra > map

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SIRRA - Sustainable Installations Regional Resource Assessment

SIRRA

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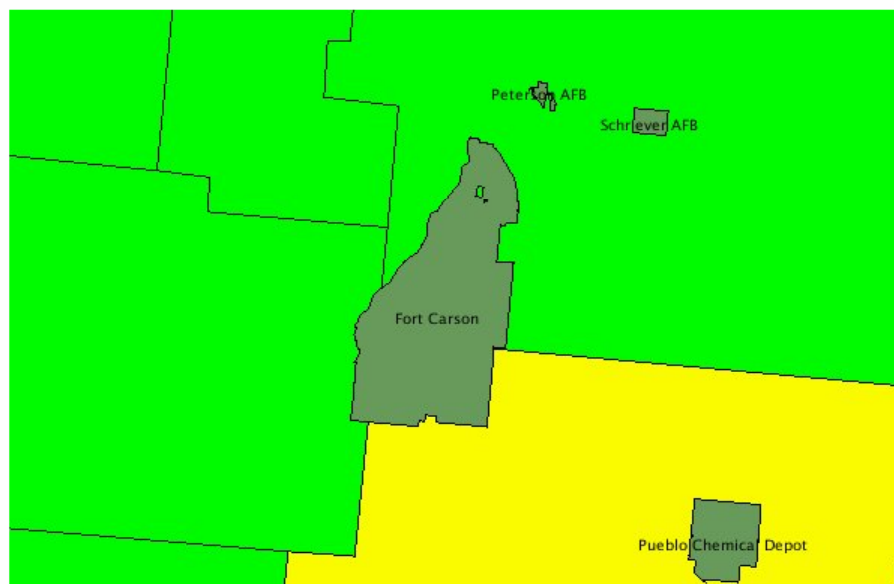
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☒ Zoom In ☐ Zoom Out ☐ Pan ☐ Full Extent ☐ Identify Installation

Incr. Regional Growth Rate Installations**Counties**

- ☐ < 110% increasing growth rate
- ☐ 100 to 110% increasing growth rate
- ☐ < 100% increasing growth rate
- ☐ No or insufficient data

Select a service branch or individual installation for display:

All Branches and Installations
Army
Air Force
DLA
Marine Corps
Navy
Aberdeen Proving Ground
Albany MCLB

Select a sustainability indicator:

Incr. Regional Growth Rate
Regional Population Growth
Regional Land Urbanization
State Smart Growth Plans
Joint Landuse Study
~~-TES-~~
Fed. Listed TES by State
Species at Risk

Update or Clear Indicator Display:

Update

Clear



Search

Sex and the city

Home security

Home and garden

City maps

London map

Mitchell and ness

Swiss army

Us army



SIRRA Map



home > resources > sirra > map

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SIRRA - Sustainable Installations Regional Resource Assessment

SIRRA

Home

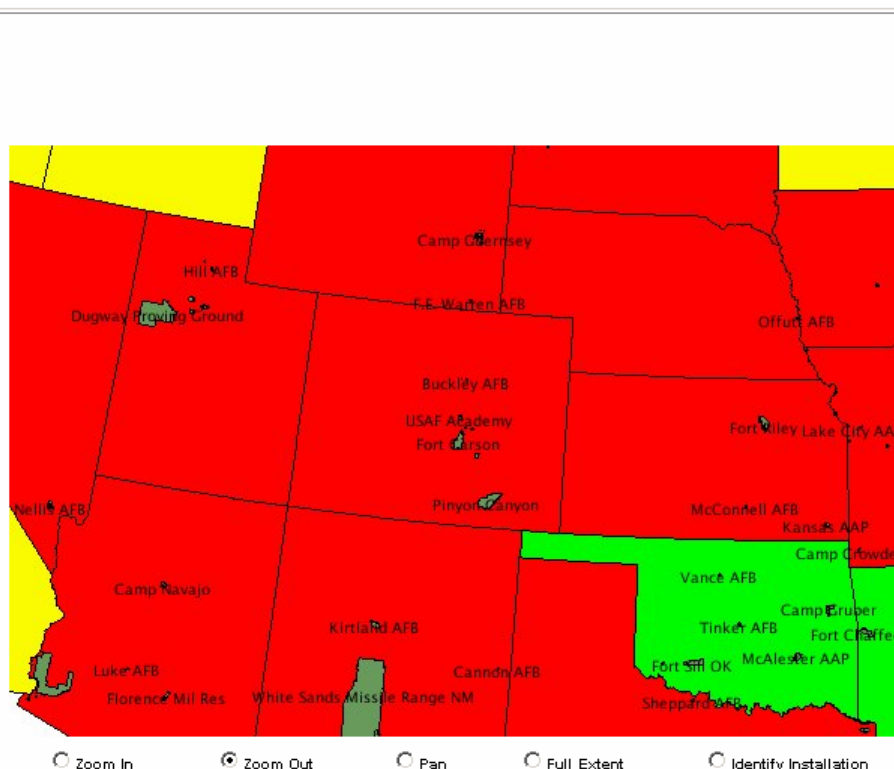
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☐ Zoom In☒ Zoom Out☐ Pan☐ Full Extent☐ Identify Installation

Renewable Energy-Biomass Installations

States

- ☒ < 50.6 tons/square mile
- ☐ 30.8 to 50.6 tons/square mile
- ☐ < 30.8 tons/square mile
- ☐ No or insufficient data

Select a service branch or individual installation for display:

All Branches and Installations
Army
Air Force
DLA
Marine Corps
Navy
Aberdeen Proving Ground
Albany MCLB

Select a sustainability indicator:

Renewable Energy-Biomass
Electrical Price Structure (Deregulation)
~~Urban Development~~
Regional Population Density
Incr. Regional Growth Rate
Regional Population Growth
Regional Land Urbanization
State Smart Growth Plans

Update or Clear Indicator Display:

Update

Clear



Potential Applications

- Installation & Communities Sustainability Planning
 - Sustainability charettes
- Regional Planning
 - Multi-Service training opportunities
- Stationing and Force Alignment Changes
- Stationing Changes
- Service, cross-service and regional mission vulnerability assessments



Current Status

- Recent Data Update
 - August 1st
- Planned Enhancements
 - Sliding thresholds
 - Report functions
 - Additional data sources



Accessing SIRRA

- Fort Future Website
<https://ff.cecer.army.mil/ff/sirramx.do>
- Password required—AKO or SIRRA
- Username: sirrauser
Password: sirrauser



For More Information

- Sustainability, Encroachment and Room to Maneuver (SERM) website
<http://www.cecer.army.mil/KD/SERM>
- Information on all planning across the fence line data and tools from Engineer Research and Development Center



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